

IN THE CLAIMS:

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application.

Claim 1 is amended.

Claims 4, 12, 13, 19-22 and 26-34 are cancelled.

Claims 1-3, 5-11, 14-18 and 23-25 are pending.

Listing of Claims:

Claim 1 (Currently Amended) An actuated leg prosthesis for replacement of a leg of an above knee amputee, the prosthesis comprising:

a knee member;

a socket connector assembly for connecting a socket to said knee member;

an elongated structural member having opposite ends spaced apart along a main longitudinal axis;

a connector assembly for connecting a terminal portion to one end of said structural member;

a pivot assembly for operatively connecting the structural member to the primary joint knee member to permit relative rotation between said knee member and said structural member about an a first axis defined by said pivot assembly; and

a linear actuator comprising a rotary motor, a screw rotatable by said rotary motor and a follower displaceable along said screw upon rotation thereof by said rotary motor, said

rotary motor being pivotally connected to said structural member and said ~~drive member~~ follower being pivotally connected to said knee member at a location spaced from said pivot assembly,

~~whereby wherein during locomotion~~ rotation of said rotary motor rotates said screw in or out of said follower thereby causing a corresponding rotation of said knee member relative to said structural member about said first pivotal axis.

Claim 2 (Previously Amended) The prosthesis according to claim 1, wherein said actuator is connected to said knee member and said structural member by respective pivotal connections having pivot axes substantially parallel to and spaced from said first axis.

Claim 3 (Original) The prosthesis according to claim 1, wherein said actuator is located within said structural member.

Claim 4 (Cancelled)

Claim 5 (Original) The prosthesis according to claim 3 wherein said structural member includes a hollow shell and said actuator is located within said shell.

Claim 6 (Original) The prosthesis according to claim 5 wherein said shell is formed from an open channel member and a detachable closure.

Claim 7 (Original) The prosthesis according to claim 5 wherein an energy storage module is supported on said shell.

Claim 8 (Previously Presented) The prosthesis according to claim 5 wherein a circuit board is supported on said shell.

Claim 9 (Previously Amended) The prosthesis according to claim 1, further comprising an artificial foot attached to said connector assembly, the artificial foot defining a front side and a rear side of the prosthesis.

Claim 10 (Previously Amended) The prosthesis according to claim 9, wherein one end of the actuator is connected to said knee member forwardly of said first pivot axis.

Claim 11 (Original) The prosthesis according to claim 3, wherein the structural member includes a back plate extending between opposite ends of said structural member.

Claims 12 (Cancelled)

Claims 13 (Cancelled)

Claim 14 (Previously Amended) The prosthesis according to claim 9, further comprising a socket attached to said knee member.

Claim 15 (Original) The prosthesis according to claim 1, further comprising a controller for controlling the actuator.

Claim 16 (Original) The prosthesis according to claim 15, wherein said controller outputs control signals to said actuator in response to input signals from proprioceptors.

Claim 17 (Previously Amended) The prosthesis according to claim 16, wherein the controller has an output connected to a power drive, the power drive supplying electrical energy to the actuator, from a power source, in response to the control signals.

Claim 18 (Previously Amended) The prosthesis according to claim 16, wherein the input signals further comprise signals from sensors mounted on said actuator.

Claim 19 (Cancelled)

Claim 20 (Cancelled)

Claim 21 (Cancelled)

Claim 22 (Cancelled)

Claim 23 (Previously Amended) The prosthesis according to claim 1 wherein a load sensor is interposed between said actuator and one of said members to provide an indication of loads imposed on said prosthesis.

Claim 24 (Previously Amended) The prosthesis according to claim 1 including a sensor to provide an indication of relative motion between said knee member and said structural member.

Claim 25 (Previously Amended) The prosthesis of claim 24 wherein said sensor is an optical sensor.

Claims 26 (Cancelled)

Claim 27 (Cancelled)

Claims 28 (Cancelled)

Claim 29 (Cancelled)

Claim 30 (Cancelled)

Claim 31 (Cancelled)

Claim 32 (Cancelled)

Claim 33 (Cancelled)

Claim 34 (Cancelled)